

IN THE CLAIMS

1-4. (Cancelled)

5. (Previously Presented) A method for controlling congestion in a network having a plurality of switching points, comprising:

maintaining a plurality of service level agreements (SLAs) at a first switching point, each SLA having a corresponding minimum data rate;

transmitting data packets corresponding to each SLA at or above the minimum data rate in accordance with the respective SLA;

receiving a message from a second switching point at the first switching point to indicate that traffic between a source and a destination is congested; and

adjusting a data rate at which packets corresponding to an SLA, destined for the destination, are output from the first switching point in response to receiving the message to reduce the congestion.

6. (Previously Presented) The method of claim 5 wherein adjusting the data rate for packets corresponding to the SLA to reduce the congestion includes reducing the data rate to the minimum data rate for the SLA.

7. (Previously Presented) The method of claim 5 wherein adjusting the data rate for packets corresponding to the SLA to reduce the congestion includes reducing the data rate below the minimum data rate.

8. (Previously Presented) The method of claim 5 wherein maintaining SLAs further comprises separating the data packets into different queues corresponding to each different SLA.

9. (Cancelled)

10. (Previously Presented) An article of manufacture comprising a machine-accessible medium that includes content that when accessed provides instructions to cause a machine to:

maintain a plurality of service level agreements (SLAs) at a first switching point, each SLA having a corresponding minimum data rate;

transmit data packets corresponding to each SLA at or above the minimum data rate in accordance with the respective SLA;

receive a message from a second switching point to indicate that traffic between a source and a destination is congested; and

adjust a data rate at which packets corresponding to an SLA, destined for the destination, are transmitted in response to receiving the message to reduce the congestion.

11. (Previously Presented) The article of manufacture of claim 10 wherein the content to provide instructions to cause the machine to adjust the data rate for an SLA to reduce the congestion includes the content providing instructions to cause the machine to reduce the data rate to the minimum data rate for the SLA.

12. (Previously Presented) The article of manufacture of claim 10 wherein the content to provide instructions to cause the machine to adjust the data rate for an SLA to reduce the congestion includes the content providing instructions to cause the machine to reduce the data rate below the minimum data rate for the SLA.

13. (Previously Presented) The article of manufacture of claim 10 wherein the content to provide instructions to cause the machine to maintain SLAs further comprises the content providing instructions to cause the machine to separate the data packets into different queues corresponding to each different SLA.

14. (Previously Presented) A method of controlling congestion among a plurality of switching points, comprising:

managing a plurality of service level agreements (SLAs) specifying a minimum data rate of transmission for packets corresponding to each SLA, at each switching point;

sending a message from a downstream switching point to an upstream switching point to cause the upstream switching point to reduce a data rate at which packets associated with a specific SLA are output from the upstream switching point to a device downstream from the downstream switching point; and

sending a message from the downstream switching point to the upstream switching point to cause the upstream switching point to increase the data rate at which packets associated with the specific SLA are output from the upstream switching point to the device downstream from the downstream switching point.

15. (Cancelled)

16. (Previously Presented) A system comprising:

a first switching point to manage service level agreements (SLAs) specifying a minimum data rate for packets corresponding to the SLA, and send a message to indicate that traffic between a source and a destination is congested; and

a second switching point coupled with the first switching point to manage SLAs specifying a minimum data rate for packets corresponding to the SLA, transmit packets from the second switching point in accordance with the SLA, receive the message from the first switching point, and reduce a data rate at which packets corresponding to an SLA indicated in the message, destined for the destination, are output from the second switching device in response to receiving the message.

17. (Previously Presented) The system of claim 16 wherein the second switching point reducing the data rate includes the second switching point to reduce the data rate to the minimum data rate specified by the corresponding SLA.

18. (Previously Presented) The system of claim 16 wherein the second switching point reducing the data rate includes the second switching point to reduce the data rate to below the minimum data rate specified by the corresponding SLA.

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19. (New) A method for controlling congestion in a network having a plurality of switching points, comprising:

maintaining a plurality of service level agreements (SLAs) at a switching point, each SLA having a corresponding minimum data rate;

receiving data packets corresponding to at least one of the SLAs ;

detecting congestion for data packets corresponding to the at least one of the SLAs; and

sending a message from the switching point to indicate the congestion to an upstream switching point to cause the upstream switching point to adjust a data rate at which packets corresponding to the at least one of the SLAs are output from the upstream switching point in response to the message.

20. (New) The method of claim 19 wherein sending a message to indicate congestion to an upstream switching point comprises sending a message to indicate to the upstream switching point to reduce the data rate to a rate at or below the minimum data rate for the SLA.

21. (New) The method of claim 19 further comprising:

sending a message from the switching point to an upstream switching point to cause the upstream switching point to increase the data rate when congestion is no longer detected for data packets corresponding to the at least one SLA.

22. (New) A network element comprising:

a receiver to receive data packets corresponding to a plurality of service level agreements (SLAs), each SLA having a corresponding minimum data rate;

congestion detection logic to detect congestion for data packets corresponding to at least one of the plurality of SLAs; and

a transmitter to send a congestion message to an upstream switching point to cause the upstream switching point to adjust a data rate at which packets corresponding to the at least one SLA are output from the upstream switching point in response to the message.

23. (New) The network element of claim 22 wherein the transmitter sends a message to indicate to the upstream switching point to reduce the data rate to a rate at or below the minimum data rate for the SLA.

24. (New) The network element of claim 22 further comprising the transmitter to send a message from the switching point to an upstream switching point to cause the upstream switching point to increase the data rate when congestion is no longer detected for data packets corresponding to the at least one SLA.